**Year 11 Maths Quick Questions – Week 1**

Name:

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| Number | Question | **Answer** | Correction |
| 1 | Write 9897 to the nearest 1000 | **10000** |  |
| 2 | What is the value of the 6 in the number 3765? | **60** |  |
| 3 | Write 13% as a fraction | **13/100** |  |
| 4 | Write 0.27 as a percentage | **27%** |  |
| 5 | Write 45% as a fraction in its lowest terms | **9/20** |  |
| 6 | 0.2 x 0.4 | **0.08** |  |
| 7 | How many cm in 6.2m | **620** |  |
| 8 | How many g in 4.7 Kg | **4700** |  |
| 9 | Change 8cm into mm | **80** |  |
| 10 | How many minutes is 3hrs 20 minutes | **200** |  |
| 11 | How many seconds is 5 minutes and 30 seconds | **330** |  |
| 12 | What is 2 cubed | **8** |  |
| 13 | What is 11 squared | **121** |  |
| 14 | 25 | **32** |  |
| 15 | 104 | **10000** |  |
| 16 | What is the square root of 64 | **8** |  |
| 17 | What is the cube root of 8 | **2** |  |
| 18 | 5 + 15 x 2 | **35** |  |
| 19 | 10 + 20 ÷ 10 | **12** |  |
| 20 | Write 9/15 as a fraction in its simplest form | **3/5** |  |
| 21 | Which is the smallest (0.343, 0.04 or 0.199) | **0.04** |  |
| 22 | What is the range of theses numbers (6,3,3,9,14) | **11** |  |
| 23 | What is the mode of these numbers (4,4,3,4,3,5,7,9,5) | **4** |  |
| 24 | Work out the mean (5,4,7,7,7) | **6** |  |
| 25 | From the numbers (3,4,6,8,9) John picks one number. What is the probability that it is an odd number? | **2/5** |  |
| 26 | Write the prime numbers between 10 and 20 | **11,13,17,19** |  |
| 27 | Three angles meet at a point. Two of them are 110 and 170. What size is the third angle? | **80** |  |
| 28 | Solve 3x = 12 | **4** |  |
| 29 | Solve x – 5 = 2 | **7** |  |
| 30 | Solve 3x – 7 = 11 | **6** |  |
| 31 | Solve x2 = 81 | **9 or -9** |  |
| 32 | John buys 2 Mars bars costing 71p each. He also buys 3 packets of crisps costing 60p each. How much change will he get from a 10 pound note? | **£6.78** |  |
| 33 | A map has a scale of 1:20000. The length of a road on the map is 14cm. Work out the real length of the road. Give your answer in cm and then also in Km. | **280000cm**  **2800m**  **2.8km** |  |
| 34 | John is twice as old as Mike. Mike is twice as old as Ann. If their combined age is 77. How old is John? | **J=44 M=22 A=11** |  |
| 35 | Write 96 as a product of its prime factors. |  |  |
| 36 | The probability of passing a test is 0.85. What is the probability of not passing the test? | **0.15** |  |
| 37 | What is the probability of rolling a 7 when you roll a normal die | **0** |  |
| 38 | When I spin a spinner the probability of getting blue is 0.3. Estimate how many times I would get blue if I spun the spinner 70 times. | **21** |  |
| 39 | Find the Area of a Circle with radius 7cm | **49pi** |  |
| 40 | What is the Circumference of a circle with radius 8cm? | **16pi** |  |
| 41 | Estimate 77 x 98 x 0.49 | **80x100x0.5**  **4000** |  |
| 42 | Write down 0.3 as a percentage | **30%** |  |
| 43 | What is the first even multiple of 11? | **22** |  |
| 44 | What is the only even prime number? | **2** |  |
| 45 | Calculate 35% of 80 | **28** |  |
| 46 | Increase 1200 by 10% | **1320** |  |
| 47 | Reduce 250 by 20% | **200** |  |
| 48 | Simplify the ratio 60:15 | **4:1** |  |
| 49 | Mike thinks of a number. He doubles it and then adds 7. The result is 21. What number did Mike think of? | **7** |  |
| 50 | Solve 2a = 12 | **6** |  |
| 51 | Solve 6y + 7 = 37 | **5** |  |
| 52 | W = 5p - t  Find the value of W when p = 6 and t = -2 | **32** |  |
| 53 | Which is greater 40% of 40 or 29% of 50?  You must show some workings | **16>14.5** |  |
| 54 | Divide 3200 in the ratio of 4:3:1 | **1600:1200:400** |  |
| 55 | Write 1.3 x 104 as a normal number | **13000** |  |
| 56 | Write 0.00035 in standard form | **3.5x** |  |
| 57 | Write 7% as a decimal | **0.07** |  |
| 58 | Change 3.4 litres into millilitres | **3400** |  |
| 59 | Write 1234 to the nearest 100 | **1200** |  |
| 60 | A film starts at 1730. The film lasts 125 minutes. What time will the film end? | **1935** |  |
| 61 | Simplify n + n + n + n – n | **3n** |  |
| 62 | Simplify 5a – 3b – a + 5b | **4a+2b** |  |
| 63 | Simplify 3x3  - x3 | **2** |  |
| 64 | Simplify y5 x y-2 |  |  |
| 65 | Factorize 6x + 14 | **2(3x+7)** |  |
| 66 | Factorize 15a2b + 10ab2 | **5ab(3a+2b)** |  |
| 67 | Expand and simplify (x + 7)(x-2) |  |  |
| 68 | What are the prime numbers between 0 and 10? | **2,3,5,7** |  |
| 69 | What are the factors of 12 | **1,12, 2,6 3,4** |  |
| 70 | Write the first 5 multiples of 9 | **9,18,27,36,45** |  |
| 71 | What is the nth term of this sequence 6,9,12,15,18 | **3n+3** |  |
| 72 | 40% of the students in a class are boys. If there are 18 girls how many people in the class in total? | **30** |  |
| 73 | What is 135minutes after 7.30am | **9:45am** |  |
| 74 | What is the area of a square with side length 9cm? | **81** |  |
| 75 | A square has an area of 36m2. What is its perimeter? | **24cm** |  |
| 76 | write 4.78 to 1 decimal place | **4.8** |  |
| 77 | 21.9 x 100 | **2190** |  |
| 78 | 4 bricks weigh a total of 2kg. 3 of the bricks weigh 400g each. How much does the 4th brick weigh? | **800g** |  |
| 79 | A = (3,2) B = (5, 10) What is the coordinate of point C the mid-point of AB | **4,6** |  |
| 80 | 2a x 6b | **12ab** |  |
| 81 | If x-1=5  Find 2x2 | **X=6** |  |
| 82 | What is the Lowest Common Multiple of 24 and 30 | **120** |  |
| 83 | (p5)2 |  |  |
| 84 | (3p2)3 |  |  |
| 85 | A car is travelling at an average speed of 32km/h for 90 minutes. How far will it travel? | **48** |  |
| 86 | A car travels for 3hrs. It covers a distance of 186miles. What is it’s average speed? | **62mph** |  |
| 87 | 0.23 as a percentage | **23%** |  |
| 88 | 0.6 as a fraction | **6/10 = 3/5** |  |
| 89 | John has 20 sweets. He gives 7 to Mary. What fraction does he keep? | **13/20** |  |
| 90 | 4 numbers have a mean of 10.  Three for the numbers are 6,7 and 8.  What is the 4th number? | **19** |  |
| 91 | Jack buys a car for £7500. He later sells it for £6000. Calculate his percentage profit. | **20%** |  |
| 92 | What is half way between -2 and 10 | **4** |  |
| 93 | What is half way between 0.3 and 0.8 | **0.55** |  |
| 94 | A car park costs £0.045p per minute. If Jack parks his car for 2 hours, how much will it cost? | **£5.40** |  |
| 95 | Shop A – 6 apples for £2.30  Shop B – 8 apples for £3.10  Which shop is better value. (Must show workings) | **ShopA** |  |
| 96 | A bus is 12.4m long. Mike buys a scale model of the bus. The scale of the model is 1:20. How long in cm is the model? | **62cm** |  |
| 97 | Cube root of 27 | **3** |  |
| 98 | Nth term = n2+10. What are the first 4 terms. | **11,14,19,26** |  |
| 99 | Find the volume of a cuboid that is 4cm x 3cm x 10cm | **120** |  |
| 100 | Liam runs the 100m in 13sec (to the nearest second). What is the lower bound (Fastest time he could have run it)? |  |  |